

REMARKS

Claim status

Claims 1-6, 8, 14-18, and 26-32 were pending in the case at the time of the current Office Action. Claims 1-6, 8, 14-18, and 26-32 are currently pending in the application. There are a total of 19 claims currently pending in the application.

Information Disclosure Statement

The Examiner has stated that the information disclosure statement filed 1-15-2002 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed.

Applicants submit a supplemental information disclosure statement herewith, providing an English abstract corresponding to the BB reference (DE3447892) previously listed in the IDS of 1-15-2002, and also providing a copy of US 6,571,129 which is believed to be another published version of the BE reference (DE10007715) previously listed in the IDS of 1-15-2002.

Applicants respectfully request that the Examiner consider these two references.

Section 102 rejections

In the current Office action, claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Kleks et al. (USPN 5,417,718).

Applicants respectfully traverse the foregoing rejection in view of the above pending claims and for reasons set forth hereafter.

Independent claim 1 recites a stimulation arrangement, comprising:
a stimulation unit to deliver electrical stimulation pulses for stimulating body tissue; and
an evaluation unit to receive at least one electrical signal in conjunction with the delivery of a stimulation pulse and to evaluate said received electrical signal for checking stimulation success, and wherein the evaluation unit detects signal features in the received electrical signal

that characterize a case of lack of stimulation success, and delivers a corresponding output signal.

It is respectfully submitted that Kleks et al. (USPN 5,417,718), hereinafter Kleks, does not teach or suggest the claimed invention. In particular, Kleks does teach or suggest specifically detecting signal features that indicate a lack of stimulation success and outputting a non-capture signal. Instead, Kleks is directed to determining when capture occurs as indicated in column 13, lines 50-52 of Kleks which says, "The present invention is primarily concerned with determining when capture occurs."

The Examiner has cited column 14, lines 19-27 of Kleks which says, "Such control logic (96) includes a processor circuit that compares the polarization template to the evoked response digital signal and generates the capture signal only when a prescribed difference exists between the polarization template and the evoked response digital signal. Thus, in operation, the presence of the capture signal indicates that the heart was captured by the stimulation pulse delivered to the heart by the pulse generator (80 or 86), while the absence of the capture signal indicates that the heart was not captured by the stimulation pulse."

Therefore, it is clear that Kleks is looking for the presence of a particular type of signal or signal feature (i.e., the prescribed difference between the polarization template and the evoked response digital signal) to determine stimulation success (i.e., capture), and the absence of the capture signal to determine lack of capture. In contrast, the invention of claim 1 is clearly detecting signal features that characterize a lack of stimulation success and outputting a positive signal that indicates this lack of stimulation success (i.e., a non-capture output signal).

A clear difference between the device of Kleks and the claimed invention is given by the fact that the claimed invention explicitly generates a non-capture signal, whereas the device disclosed by Kleks would only generate a capture signal when there is a prescribed difference between the detected event and the stored polarization template. If this difference does not exist, the device according to Kleks would act as if there was no capture (see in particular Figure 9, block 180). The claimed invention compares an evoked response to those features being characteristic for a polarization artifact. If those features are met, a non-capture signal is generated indicating a positive detection of a non-capture event and not simply the non-existence of a difference to a non-capture event.

Should the claimed invention in a first test not detect a non-capture event positively, then the event is tested for positively meeting the features of a capture event. Please note, there is a gap between those features which positively characterize a non-capture event and those features which positively characterize a capture event (please refer to the test algorithm as disclosed in paragraph [0022] of the present application). If the claimed invention is not able to positively assign an event to a non-capture event or a capture event, respectively, in the first two tests, further tests are carried out in order to decide on the event's type and, if the third test would fail, the algorithm positively creates a non-capture signal.

In summary, the device according to Kleks only creates a positive capture signal if the device according to Kleks detects a prescribed difference between the evoked signal and the polarization template. The device according to Kleks responds to the detection of such a prescribed difference, whereas the claimed invention responds to the positive detection of features characterizing a non-capture event and there upon creates a non-capture signal.

Therefore, in view of at least the foregoing, it is respectfully submitted that claim 1 is neither anticipated nor rendered obvious, and it is respectfully submitted that claim 1 now defines allowable subject matter. Also, since claim 2 depends directly from claim 1, it is respectfully submitted that claim 2 defines allowable subject matter as well. Applicants respectfully request that the rejection of claims 1-2 under 35 U.S.C. 102(b) be removed.

Section 103 rejections

In the current Office action, claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleks.

Applicants respectfully traverse the foregoing rejection in view of the above pending claims and for reasons set forth hereafter.

As described previously, Kleks does not teach or suggest the invention of independent claim 1 and it was submitted that claim 1 defines allowable subject matter. Therefore, detecting a negative sample value in combination with claim 1 does not teach or suggest the invention of claims 14 and 15 which are dependent, either directly or indirectly, on claim 1. Since claims 14-15 are dependent, either directly or indirectly, from claim 1, it is respectfully submitted that

claims 14-15 define allowable subject matter as well. Applicants respectfully request that the rejection of claims 14-15 under 35 U.S.C. 103(a) be removed.

Allowable Subject Matter

Applicants thankfully acknowledge the Examiners assertion that claims 3-6, 8, 16-18, and 26-32 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, even though Applicants believe and have argued herein that independent claim 1 is allowable on its own.

Accordingly, the applicant respectfully requests reconsideration of the rejections based on the arguments made above. After such reconsideration, it is urged that allowance of all claims will be in order.

Respectfully submitted,



David J. Muzilla
Registration No. 50,914

Hahn Loeser & Parks LLP
One GOJO Plaza
Suite 300
Akron, OH 44311-1076
(330) 864-5550
Fax 330-864-7986
dmuzilla@hahnlaw.com

CUSTOMER No. 021324